

PTO 99P 2051

Japanese Kokai Patent Application  
No. Hei 2[1990]-289000

INSTALLMENT-PAYMENT INFORMATION PROCESSING DEVICE

Makoto Nozawa

UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. MARCH 1999  
TRANSLATED BY THE RALPH MCELROY TRANSLATION COMPANY

PTO99-2051

JAPANESE PATENT OFFICE  
PATENT JOURNAL  
KOKAI PATENT APPLICATION NO. HEI 2[1990]-289000

Int. Cl. <sup>5</sup> :	G 07 G 1/12 G 06 F 15/30
Sequence Nos. for Office Use:	8610-3E 6798-5B
Application No.:	Hei 1[1989]-263670
Application Date:	October 9, 1989
Publication Date:	November 28, 1990
No. of Claims:	4 (Total of 19 pages)
Examination Request:	Not requested

INSTALLMENT-PAYMENT INFORMATION PROCESSING DEVICE

[Bunkatsubarai joho shori sochi]

Inventors:	Makoto Nozawa
Applicant:	Tokyo Denki K.K.

[There are no amendments to this patent.]

Claims

/1\*

1. An installment-payment information processing device characterized in that it is equipped with:

an input means for inputting the merchandise amount and the number of installments,

a memory means having a merchandise-amount storage area that stores the merchandise amount input by means of this input means, a number-of-installments storage area that stores the number of installments input by the above-mentioned input means, and an interest storage area that stores the interest corresponding to the number of installments,

an output means,

and a control means having a payment amount calculating means that ascertains the payment amount from the merchandise amount stored in the above-mentioned merchandise-amount storage area and the interest stored in the above-mentioned interest storage area and which corresponds to the number of installments stored in the above-mentioned number-of-payments storage area, an installment-amount calculating means that ascertains the installment amount each time from the payment amount found by means of this payment-amount calculating means and the number of installments stored in the above-mentioned number-of-installments

---

\* [Numbers in the margin indicate pagination in the foreign text.]

storage area, and a means that outputs, to the above-mentioned output means, at least one of the above-mentioned payment amounts and the installment amount for each occurrence.

2. An installment-payment information processing device characterized in that it is equipped with:

an input means for inputting the merchandise amount and the number of installments,

a memory means having a merchandise-amount storage area that stores the merchandise amount input by means of this input means, a number-of-installments storage area that stores the number of installments input by the above-mentioned input means, remitted down-payment amount storage area that stores the down payment input by the above-mentioned input means, and an interest storage area that stores the interest corresponding to the number of installments,

an output means,

and a control means having an installment-object amount calculating means that determines the installment-object amount from the merchandise amount stored in the above-mentioned merchandise-amount storage area and the down-payment amount stored in the above-mentioned down-payment amount storage area, a payment-amount calculating means that determines the payment amount from the installment-object amount found by means of this installment-object amount calculating means and the interest stored in the above-mentioned interest storage area and which corresponds to the number of installments stored in the

above-mentioned number-of-installments storage area, an installment-amount calculating means that determines the installment amount each time from the payment amount determined/2 by means of this payment-amount calculating means and the number of installments stored in the above-mentioned number-of-installments storage area, a total-payment amount calculating means that determines the total-payment amount from the down-payment amount stored in the above-mentioned down-payment amount storage area and the payment amount that was determined by the above-mentioned payment-amount calculating means, and a means that outputs, to the above-mentioned output means, at least one of the total-payment amount and the installment amount for each occurrence.

3. An installment-payment information processing device characterized in that it is equipped with:

an input means for inputting a merchandise amount, the number of installments, and a bonus-payment total amount,

a memory means having a merchandise-amount storage area that stores the merchandise amount input by means of this input means, a number-of-installments storage area that stores the number of installments input by the above-mentioned input means, a bonus-payment total amount storage area that stores a bonus-payment total amount input by the above-mentioned input means, and an interest storage

area that stores the interest corresponding to the number of installments,

an output means,

and a control means having a payment-amount calculating means that determines the payment amount from the merchandise amount stored in the above-mentioned merchandise-amount storage area and the interest stored in the above-mentioned interest storage area and which corresponds to the number of installments stored in the above-mentioned number-of-installments storage area, a bonus-payment total amount calculating means that, along with finding a bonus-payment number of times from the number of installments stored in the above-mentioned number-of-installments storage area, ascertains a bonus-payment total amount from that bonus-amount number of times and the bonus-payment total amount stored in the above-mentioned bonus-payment total amount storage area, an equal installment-object amount calculating means that determines an equal installment-object amount from the payment amount found by the above-mentioned payment-amount calculating means and the bonus-payment total amount found by the above-mentioned bonus-payment total amount calculating means, and an installment-amount calculating means that determines the installment amount each time from the equal installment-object amount found by the equal installment-object amount calculating means and the number of installments stored in the above-mentioned number-of-installments storage area, and a means that outputs, to the above-mentioned output means, at least one of the

above-mentioned payment amount and the installment amount for each occurrence.

4. An installment-payment information processing device characterized by the fact that it is equipped with:

an input means for inputting the merchandise amount, the number of installments, and the credit/loan company designating information that designates any one from among multiple credit/loan companies,

a memory means having a merchandise-amount storage area that stores the merchandise amount input by means of this input means, a number-of-payments storage area that stores the number of payments input by the above-mentioned input means, and an interest storage area that stores the interest corresponding to the number of installments for each of the multiple credit/loan companies,

an output section,

and a control means that has a payment-amount calculating means that determines the payment amount from the merchandise amount stored in the above-mentioned merchandise-amount storage area, the number of installments stored in the above-mentioned number-of-installments storage area, and the interest stored in the above-mentioned interest storage area corresponding to the credit/loan company designation information, an installment-amount calculating means that determines the installment amount each time from the

payment amount found by means of this payment amount calculating means and the number of installments stored in the above-mentioned number-of-installments storage area, and a means that outputs to the above-mentioned output means, at least one of the above-mentioned payment amount and the installment amount for each occurrence.

#### Detailed explanation of the invention

##### Industrial application field

This invention relates to an installment-payment information processing device. Specifically, it relates to an installment-payment information processing device made so as to be able to, in the event a customer wishes to purchase merchandise on installment payments, clearly show the customer, for example, the installment amount for each time and the total-payment amount.

##### Prior art

In the past, in a small retail store or the like, in the event a customer wished to purchase merchandise on installment payments, the clerk calculated the installment amount for each time and the total-payment amount from the merchandise amount, the number of installments, reasonable interest, and the like, using a desk calculator, and showed this to the customer.

Therefore, the customer decided whether or not to purchase the merchandise based on/3



a reasonable installment amount for each time, the total-payment amount, and the like. In the event of purchasing the merchandise on installment payments, the customer confirmed the accurate amounts for the installment amount for each time and the total-payment amount from specifications that were sent from a credit/loan company after the purchase, and made the payments according to that.

#### Problems to be solved by the invention

In the event a customer desired to purchase merchandise on installments, as in the past, as for the fact that an accurate amount for the installment amount for each time and the total-payment amount could not be shown to the customer, since accurate information could not be offered to the customer for deciding whether to purchase the merchandise, besides being unfriendly to the customer, it was also the cause of lowering the purchasing power of the customer.

That being said, from the seller's side, in accurately calculating the payment amount for each time and the total-payment amount using a desk calculator at that location, not only was this troublesome, but because it also took time, the response to the customer was delayed, which was connected to a lowering of the quality of service.

In particular, in the case of an installment purchase, since the interest was different

depending on the credit/loan company and also depending on the number of installments, since the customer had to calculate the installment amount for each time and the total installment amount by the interest corresponding to the desired credit/loan company and the number of installments, the calculations were more troublesome.

In addition, in the event the customer desired to include a down payment and in the event he/she desired to make a bonus payment, the calculations became even more troublesome.

Therefore, by including these, accurately calculating the installment amount for each time and the total-payment amount at the seller side by means of a desk calculator became extremely difficult from a practical standpoint.

The purpose of this invention is to offer an installment-payment information processing device that solves these types of prior problems, and which is made so as to be able to simply and quickly show the installment amount for each time and the total installment amount to a customer in the event the customer desires an installment purchase.

#### Means for solving the problems

In the invention recorded in Claim 1, it is characterized by an input means for inputting the merchandise amount and the number of installments, a memory means having a

merchandise-amount storage area that stores the merchandise amount input by this input means, a number-of-installments storage area that stores the number of installments input by the above-mentioned input means, and an interest storage area that stores the interest corresponding to the number of installments, an output means, and a control means having a payment amount calculating means that determines the payment amount from the merchandise amount stored in the above-mentioned merchandise-amount storage area and the interest stored in the above-mentioned interest storage area and which corresponds to the number of installments stored in the above-mentioned number-of-payments storage area, an installment amount calculating means that determines the installment amount for each time from the payment amount found by means of this payment amount calculating means and the number of installments stored in the above-mentioned number-of-installments storage area, and a means that outputs, to the above-mentioned output means, at least one of the above-mentioned payment amount and the installment amount for each time.

Also, in the invention recorded in Claim 2, it is characterized by an input means for inputting the merchandise amount and the number of installments, a memory means having a merchandise-amount storage area that stores the merchandise amount input by this input means, a number-of-installments storage area that stores the number of installments input by the above-mentioned input means, remitted down-payment amount storage area that stores the down

payment that is inputted by the above-mentioned input means, and an interest storage area that stores the interest corresponding to the number of installments, an output means, and a control means having an installment-object amount calculating means that determines the installment-object amount from the merchandise amount stored in the above-mentioned merchandise-amount storage area and the down-payment amount stored in the above-mentioned down-payment amount storage area, a payment amount calculating means that determines the payment amount from the installment-object amount found by this installment-object amount calculating means and the interest stored in the above-mentioned interest storage area and which corresponds to the number of installments stored in the above-mentioned number-of-installments storage area, an installment-amount calculating means that determines the installment amount for each time from the payment amount found by this payment-amount calculating means and the number of installments stored in the above-mentioned number-of-installments storage area, a total-payment amount calculating means that determines the total-payment amount from the down-payment amount stored in the above-mentioned down-payment amount storage area and the payment amount found by the above-mentioned payment-amount calculating means, and a means that outputs, to the above-mentioned output means, at least one of the total-payment amount and the installment amount for each time.

/4

Also, in the invention recorded in Claim 3, it is characterized by an input means for

inputting a merchandise amount, the number of installments, and a bonus-payment total amount, a memory means having a merchandise-amount storage area that stores the merchandise amount input by this input means, a number-of-installments storage area that stores the number of installments input by the above-mentioned input means, a bonus-payment total amount storage area that stores a bonus-payment total amount input by the above-mentioned input means, and an interest storage area that stores the interest corresponding to the number of installments, an output means, and a control means having a payment-amount calculating means that determines the payment amount from the merchandise amount stored in the above-mentioned merchandise-amount storage area and the interest stored in the above-mentioned interest storage area and which corresponds to the number of installments stored in the above-mentioned number-of-installments storage area, a bonus-payment total-amount calculating means that, along with determining a bonus payment number-of-times from the number of installments stored in the above-mentioned number-of-installments storage area, determines a bonus-payment total amount from that bonus amount number-of-times and the bonus-payment total amount stored in the above-mentioned bonus-payment total amount storage area, an equal-installment-object amount calculating means that determines an equal-installment-object amount from the payment amount found by the above-mentioned payment amount calculating means and the bonus-payment total amount found by the above-mentioned bonus-payment total amount calculating means, and

installment-amount calculating means that determines the installment amount for each time from the equal-installment-object amount found by the equal-installment-object amount calculating means and the number of installments stored in the above-mentioned number-of-installments storage area, and a means that outputs, to the above-mentioned output means, at least one of the above-mentioned payment amount and the installment amount for each time.

Also, in the invention recorded in Claim 4, it is characterized by an input means for inputting the merchandise amount, the number of installments, and the credit/loan company designating information that designates any one from among multiple credit/loan companies, a memory means having a merchandise-amount storage area that stores the merchandise amount input by this input means, a number-of-payments storage area that stores the number of payments input by the above-mentioned input means, and an interest storage area that stores the interest corresponding to the number of installments for each of the multiple credit/loan companies, an output section, and a control means that has a payment-amount calculating means that determines the payment amount from the merchandise amount stored in the above-mentioned merchandise-amount storage area, the number of installments stored in the above-mentioned number-of-installments storage area, and the interest stored in the above-mentioned interest storage area corresponding to the credit/loan company designation information, an installment-amount calculating means that determines the installment amount for each time from the payment

amount found by this payment-amount calculating means and the number of installments stored in the above-mentioned number-of-installments storage area, and a means that outputs, to the above-mentioned output means, at least one of the above-mentioned payment amount and the installment amount for each time.

### Operations

In the invention recorded in Claim 1, when the merchandise amount and the number of installments are inputted by the input means, the merchandise amount is stored in the merchandise-amount storage area and the number of installments is stored in the number-of-installments storage area.

When this is done, the control means determines the payment amount from the merchandise amount stored in the merchandise-amount storage area and determines the interest stored in the interest storage area and which corresponds to the number of installments stored in the number-of-installments storage area. Continuing, it determines the installment amount for each time from the payment amount and the number of installments stored in the number-of-installments storage area. Finally, at least one of the payment amount and the installment amount for each time is output to the output means.

Therefore, the payment amount for the installment for each time can be simply and easily shown to the customer. This fact, along with being able to lighten the burden at the seller side, can also contribute to quickly acquiring the response and improving the service to the customer.

Also, in the invention recorded in Claim 2, when the merchandise amount, the number of installments, and the down-payment amount are inputted by the input means, the merchandise amount is stored in the merchandise-amount storage area, the number of installments is stored in the number-of-installments storage area, and the down-payment amount is stored in the down-payment amount storage area, respectively.

When this is done, the control means determines the installment-object amount from the merchandise amount stored in the merchandise-amount storage area and the down-payment amount stored in the down-payment amount storage area. Continuing, it determines the payment amount from the amount subject to installments, and determines the interest that is stored /5 in the interest storage area and which corresponds to the number of installments stored in the number-of-installments storage area. Continuing, it determines the installment amount for each time from the payment amount and the number of installments stored in the number-of-installments storage area. Also, it determines the total-payment amount from the down-payment amount and the payment amounts. Finally, at least one of the payment amount and installment amount for each time is outputted to the output means.



Therefore, because the customer can know at least one of the total-payment amount and the installment amount each time, information can be supplied that meets the requirements of the customer.

Also, in the invention recorded in Claim 3, when the merchandise amount, the number of installments, and the bonus-payment total amount are inputted by the input means, the merchandise amount is stored in the merchandise-amount storage area, the number of installments is stored in the number-of-installments storage area, and the bonus-payment total amount is stored in the bonus-payment total amount storage area.

When this is done, the control means determines the payment amount from the merchandise amount stored in the merchandise-amount storage area and determines the interest stored in the interest storage area and which corresponds to the number of installments stored in the number-of-installments storage area. Also, along with determining the number of bonus payments from the number of installments stored in the number-of-installments storage area, it determines the bonus-payment total amount from that number of bonus payments and the bonus-payment total amount stored in the bonus-payment total amount storage area. Continuing, it determines the equal-installment-object amount from the above-mentioned payment amount and the above-mentioned bonus-time payment total amounts. It then determines the installment amount for each time from the equal-installment-object amount and the number of installments

stored in the number-of-installments storage area. Finally, it sends to the output means at least one of the payment amount and the installment amount for each time.

Therefore, because the customer can know at least one of the payment amount including the bonus-payment total amounts and the payment amount for each time, information can be offered that meets the requirements of the customer.

Also, in the invention recorded in Claim 4, when the merchandise amount, the number of installments, and the credit/loan company designating information are inputted by the input means, the merchandise amount is stored in the merchandise-amount storage area, and the number of installments is stored in the number-of-installments storage area.

When this is done, the control means determining the payment amount from the merchandise amount stored in the merchandise-amount storage area and determines the interest stored in the interest storage area and which corresponds to the number of installments stored in the number-of-installments storage area and the credit/loan company designating information. Continuing, it finds the installment amount for each time from the payment amount and the number of installments stored in the number-of-installments storage area. Finally, it sends to the output means at least one of the payment amount and the installment amount for each time.

Therefore, even if it is a credit/loan company that the customer desires, the installment amount for each time can be simply and quickly shown with the interest corresponding to the

number of installments for that credit/loan company, and the information that meets the requirements of the customer can be supplied.

### Application Examples

Below, an explanation is given in regard to application examples in which this invention is assembled in an electronic cash register (ECR), while referencing the figures.

#### Application Example 1

Application Example 1 is shown in Figures 1 to 5. First, in Figure 1, (11) is a CPU. The ROM (13) that stores the program that determines the operations of the CPU (11), the RAM (14) used as a memory means, the keyboard (15) used as an input means, the display device (16), the drawer (17), and the printer (18) used as the output means are respectively connected to the CPU (11) through the address data base (12).

As shown in Figure 3, in the keyboard (15), besides the control key (41), the numerical keys (42) of from "00" and "0" to "9," the "DP1" "DP2" @@@ section key (43), the responsible person key (44) of from "a" to "h," the subtotal key (45), the tended/current total key (46), and the like, which an ECR is normally equipped with, an installment key (47) for inputting installment-payment information, a number-of-times key (48), a bonus key (49), and a down-

payment key (50), are respectively provided.

The control key (41), along with conducting the on/off control of the power supply, executes (by instructing the above-mentioned CPU (11)) the various operations such as "register," "check," "accumulate," "total," and the like. Here, the term "register" specifies an operation that stores the amount for the merchandise sold and the like in the RAM (14), conducts totaling of the overall amount and the like, and prints those results on a receipt and in a journal with the printer (18). The term "check" specifies an operation that prints out the total sales amount and the total number of sales that have been stored in the RAM (14) by means of "register." The term "accumulate" specifies an operation that, for example, at the end of business for one day, along with printing out the total sales amount and the total number of sales that have been accumulated and stored in the RAM (14) by means of "register," clears the contents of the RAM (14). The term "total" specifies an operation that calculates the installment amount and the total-payment amount for one month based on the inputted merchandise amount, number of installments, bonus-payment total amount, and down payment, and prints those out.

In the RAM (14), besides the area for used for storing the various sales data by means of "register," various areas and flags are provided for storing the installment-payment information, such as is shown in Figure 2.

Here, for the various areas used for storing the installment-payment information, there are

a merchandise-amount storage area (21), a number-of-installments storage area (22), a bonus-payment total amount storage area (23), a down-payment amount storage area (24), an applied-interest storage area (25), an interest storage area (26) corresponding to the number of installments ( $N = 12$ ), an interest storage area (27) corresponding to the number of installments ( $N = 24$ ), an interest storage area (28) corresponding to the number of installments ( $N = 36$ ), an installment-object amount storage area (29), a payment-amount storage area (30), a bonus payment number-of-times storage area (31), a bonus-payment total amount storage area (32), an equal installment-object amount storage area (33), an installment per month storage area (34), and a total-payment amount storage area (35).

The merchandise amount, number of installments, bonus-payment total amount, and down-payment amount that are inputted by the above-mentioned numeric keys (42) and the above-mentioned installment key (47), the number-of-times key (48), the bonus key (49), and the down payment key (50) are respectively stored in the merchandise-amount storage area (21), the number-of-installments storage area (22), the bonus-payment total amount storage area (23), and the down-payment amount storage area (24).

The interest corresponding to the inputted number of installments is selected from among the above-mentioned interest storage areas (26, 27, 28) and stored in the applied-interest storage area (25). The different interest [rates] corresponding to each predetermined number of

installments are respectively stored in the interest storage area (26) corresponding to a number of installments ( $N = 12$ ), the interest storage area (27) corresponding to a number of installments ( $N = 24$ ), and the interest storage area (28) corresponding to a number of installments ( $N = 36$ ). In regard to these interest [rates], these are made so as to be conveniently set and changed by operations from the keyboard (15).

The installment-object amount determined by means of totaling the later explained installment-payment information, the payment amount, the number of bonus payments, the bonus-payment total amount, equal installment-object amount, interest amount per month, and the total-payment amount are made so as to be respectively stored in the installment-object amount storage area (29), payment amount storage area (30), number of bonus payments storage area (31), bonus payment total amount storage area (32), equal installment-object amount storage area (33), interest amount per month storage area (34), and total-payment amount storage area (35).

Also, for the various flags, there are the installment key flag (36), number-of-times key flag (37), bonus key flag (38), and down-payment key flag (39).

The CPU (11), along with executing various operations such as "register," "check," and "accumulate" according to the program stored in the ROM (13), executes the "total," in other words, the processes shown in Figures 5(A), (B), (C), (D), and (E). Here, the control means is

constructed by the CPU (11) and the ROM (13). The control means, along with executing each of the above-mentioned operations of "register," "check," and "accumulate," is equipped with a means that executes the processes shown in Figures 5(A), (B), (C), (D), and (E).

In other words, it is equipped with: an installment-object amount calculating means that determines the amount subject to installment by subtracting the down-payment amount stored in the above-mentioned down-payment amount storage area (24) from the merchandise amount stored in the above-mentioned merchandise-amount storage area (21); a payment amount calculating means that determines the payment amount by multiplying the installment-object amount determined this installment-object amount calculating means and the interest stored in the above-mentioned interest storage areas (26, 27,28), and which corresponds to the number of installments stored in the above-mentioned number-of-7 installments storage area (14); a bonus-payment total amount calculating means that determines the bonus-payment total amount by, along with ascertaining the number of bonus payments from the number of installments stored in the above-mentioned number-of-installments storage area (14), multiplies that number of bonus payments by the bonus-payment total amount stored in the above-mentioned bonus-payment total amount storage area (23); an equal installment-object amount calculating means that determines the equal installment-object amount by subtracting the bonus-payment total amount found by the above-mentioned bonus-payment total amount

calculating means from the payment amount found by the above-mentioned payment amount calculating means; an installment amount calculating means that determines the installment amount for each time by dividing the equal installment-object amount, found by this equal installment-object amount calculating means by the number of installments stored in the above-mentioned number-of-installments storage area (24); a total-payment amount calculating means that determines the total-payment amount by adding the down-payment amount stored in the above-mentioned down-payment amount storage area (24) and the payment amount; a means that prints the down-payment amount with the above-mentioned printer (18), the installment amount for each time, the number of installments, and the bonus-payment total amount and the number of bonus payments as well as the total-payment amount; and the like.

Next, the operation of this application example is explained. In regard to each of the operations of "register," "check," and "accumulate," since these are the same as those of an ordinary ECR, here, [these are omitted], and an explanation is given only in regard to the "total" operation in the case of totaling the installment-payment information.

In order to total the installment-payment information, first, with the control key (41) in the state in which it is switched to "total," after the merchandise amount is inputted by the numeric keys (42), the installment key (47) is pushed. Continuing, after the number of times is inputted by the numeric keys (42), the number-of-times key (48) is pushed. Lastly, the subtotal



key (45) is pushed. In the event there is a bonus-payment total, following the number-of-times key (48), after the amount of payment at bonus time (bonus-payment total amount) is inputted by the numeric keys (42), the bonus key (49) is pushed. In the event there is money received as a down payment, following the bonus key (49), after the down-payment amount is inputted by the numeric keys (42), the down payment key (50) is pushed.

On the other hand, the CPU (11) executes the processes according to the flow charts shown in Figures 5(A), (B), (C), and (D), (E). First, in the step (hereinafter, simply abbreviated as ST.) (1) shown in Figure 5 (A), the control key (41) determines whether it is the "total" mode. If it is not the "total" mode, it advances to (ST2), and another mode process is conducted. If it is the "total" mode, in (ST3 to ST8), the inputted key determines which it is. In the event it is not the subtotal key (45), numeric keys (42), installment key (47), number-of-times key (48), bonus key (49), nor down-payment key (50), it is processed as an error.

At (ST5), when it is confirmed that the installment key (47) has been pushed, it advances to (ST11; after the numeric data (in this case, the merchandise amount) that was inputted at (ST4) have been stored into the merchandise-amount storage area (21), the installment key flag (36) is set to "1" at (ST12).

At (ST6), when it has been confirmed that the number-of-times key (48) has been pushed, it advances to (ST13), and a determination is made as to which of "12," "24," or "36" the

numeric data that were inputted at (ST4) are. If the numeric data are not one of the above-mentioned, it is processed as an error. If the numeric data are any one of the above-mentioned, it advances to (ST14), and the numeric data (in this case, the number of installments) are stored in the number-of-installments storage area (22); continuing, at (ST15), the interest corresponding to the number of times is selected from among the interest storage areas (26, 27, 28); afterwards this is stored into the applied-interest storage area (25) and the number-of-times key flag (37) is set to "1" at (ST16).

At (ST7), when it is confirmed that the bonus key (49) has been pushed, it advances to (ST17); after the numeric data (in this case, the bonus-payment total amount) inputted at (ST4) are stored into the bonus-payment total amount storage area (23), it sets the bonus key flag (38) to "1" at (ST18).

At (ST8), when it is confirmed that the down payment key (50) has been pushed, it advances to (ST19), and after the numeric data (in this case, the down-payment amount) that was inputted at (ST4) is stored to the down-payment amount storage area (24), it sets the down payment key flag (39) to "1" at (ST20).

Therefore, when the merchandise amount, the number of installments, the /8 bonus-payment total amount, and the down-payment amount are successively inputted, the merchandise amount is stored in the merchandise-amount storage area (21), and a "1" is set in the

installment key flag (36). Also, as for the number of installments, along with it being stored in the number-of-installments storage area (22), the interest corresponding to that number of installments is stored in the applied-interest storage area (25), and the number-of-times key flag (37) is set to "1." Also, the bonus-payment total amount is stored into the bonus-payment total amount storage area (23), and the bonus key flag (38) is set to a "1." Also, the down-payment amount is stored to the down-payment amount storage area (24), and the down-payment key flag (39) is set to a "1."

When it is confirmed at (ST3) that the subtotal key (45) has been pushed, at (ST21 to ST25), determinations are successively made as to whether the installment key flag (36), the number-of-times key flag (37), the bonus key flag (38), and the down-payment key flag (39) are "1." At the decision of (ST21) and (ST22), in the event both the installment key flag (36) and the number-of-times key flag (37) are not "1," it is processed as an error.

When it is determined at the decisions of (ST21 to ST25) that all of the key flags (36, 37, 38, 39) are "1," in other words, when it is confirmed that the merchandise amount, the number of installments, the bonus-payment total amount, and the down-payment amount have all been inputted, it advances to the process of the flow chart shown in Figure 5(B). First, at (ST31), the contents (down-payment amount) of the down-payment amount storage area (24) are subtracted from the contents (merchandise amount) of the merchandise-amount storage area (21),

the installment-object amount is determined, and that installment-object amount is stored into the installment-object amount storage area (29).

Continuing, at (ST32), the contents (installment-object amount) of the installment-object amount storage area (29) and the contents (interest corresponding to the number of installments) of the applied-interest storage area (25) are multiplied, the payment amount is determined, and the payment amount is stored into the payment amount storage area (30).

Continuing, at (ST33 to ST35), a decision is made as to whether the number of installments is "12," "24," or "36," If the number of installments is "12," it advances to (+ST36) and the number of bonus payments "2" is stored into the number-of-bonus-payments storage area (31); continuing, it advances to "ST37" and the bonus-payment total amount is found by multiplying the contents (bonus-payment total amount) of the bonus-payment total amount storage area (23) by the contents (number of bonus payments "2") of the number-of-bonus-payments storage area (31); afterwards, the bonus-payment total amount is stored into the bonus-payment total amount storage area (32), then it advances to (ST42).

If the number of installments is "24," it advances to (ST38) and the number of bonus payments "4" is stored into the payment storage area (31); continuing, it advances to (ST39) and the bonus-payment total amount is determined by multiplying the contents (bonus-payment total amount) of the bonus-payment total amount storage area (23) by the contents (number of bonus

payments "4" of the number-of-bonus-payments storage area (31), afterwards, the bonus-payment total amount is stored into the bonus-payment total amount storage area (32), then it advances to (ST42).

Also, if the number of installments is "36," it advances to (ST40) and the number of bonus payments "6" is stored to the payment storage area (31); continuing, it advances to (ST41), the bonus-payment total amount is found by multiplying the contents (bonus-payment total amount) of the bonus-payment total amount storage area (23) by the contents (number of bonus payments "6") of the number-of-bonus payments storage area (31); afterwards the bonus-payment total amount is stored into the bonus-payment total amount storage area (32), then it advances to (ST42).

Continuing, at (ST42), the average installment-object amount is determined by subtracting the contents (bonus-payment total amount) of the bonus-payment total amount storage area (32) from the contents (payment amount) of the payment amount storage area (30); this average installment-object amount is stored into the average installment-object amount storage area (33).

Continuing, at (ST43), the installment amount per month is found by dividing the contents (equal installment-object amount) of the equal installment-object amount storage area (33) by the contents (number of installments) of the number-of-installments storage area (22);

this installment amount per month is stored into the installment amount storage area (34).

Continuing, at (ST44), the total-payment amount is found by adding the contents (down-payment amount) of the down-payment amount storage area (24) and the contents (payment amount) of the payment-amount storage area (30); this total-payment amount is stored /9 to the total-payment amount storage area (35).

Continuing, at (ST45), the contents (down-payment amount) of the down-payment amount storage area (24), the contents (installment amount per month) of the installment amount per month storage area (34), the contents (number of installments) of the number-of-installments storage area (22), the contents (bonus-payment total amount) of the bonus-payment total amount storage area (23), the contents (number of bonus payments) of the number-of-bonus-payments storage area (31), and the contents (total-payment amount) of the total-payment amount storage area (35), respectively, are printed by the printer (18), and by this means, for example, a sheet such as is shown in Figure 4 is issued.

Finally, at (ST46), the contents of each area in each flag are cleared, except for the interest storage areas (26, 27, 28) corresponding to the number of installments ( $N = 12, 24, 36$ ).

In this case, using the amount in which the down-payment amount was subtracted from the merchandise amount as the installment-object amount, the bonus-payment amount, the bonus-payment total amount, the installment amount per month, and the total-payment amount

are determined, and these are printed out. Therefore, even in the event the customer desires to remit a down payment and make a payment at bonus time, the installment-payment information including such a desires can be simply and quickly found.

Also, at the decisions of (ST21 to ST25), except for the down-payment key flag (39), the fact that all of the other key flags (36, 37, 38) are "1" is confirmed, in other words, except for the down-payment amount, the fact is confirmed that the merchandise amount, the number of installments, and the bonus-payment total amount have been inputted is confirmed, then it advances to the process of the flow chart shown in Figure 5(C). There, at (ST51), after the contents (merchandise amount) of the merchandise-amount storage area (21) have been transferred to the installment-object amount storage area (29), it advances to (ST32) of Figure 5(B).

In this case, since the down-payment amount was not inputted, the merchandise amount became the installment-object amount as is, and the installment amount per month and payment amount were calculated. Because the content of the down-payment amount storage area (24) is 0, the total-payment-amount found at (ST44) and the total-payment amount that was printed out at (ST45) matches the contents of the payment amount storage area (30).

Also, at the decisions of (ST21 to ST25), except for the bonus key flag (38), when the fact that all of the other key flags (36, 37, 39) are "1" is confirmed, in other words, when the fact

that, except for the bonus-payment total amount, the merchandise amount, the number of installments, and the down-payment amount have been inputted, is confirmed, it advances to the process of the flow chart shown in (Figure 5(D). There, at (ST52), the installment-object amount is determined by subtracting the contents (down-payment amount) of the down-payment amount storage area (24) from the contents (merchandise amount) of the merchandise-amount storage area (21); this installment-object amount is stored into the installment-object amount storage area (29). Continuing, at (ST53), an equal installment-object amount (= payment amount) is determined by multiplying the contents (installment-object amount) of the installment-object amount storage area (29) by the contents (interest corresponding to the number of installments) of the applied-interest storage area (25); after these are stored in the equal installment-object amount storage area (33) and the payment amount storage area (30), it advances to (ST43) of Figure 5(B).

In this case, the results of subtracting the down-payment amount from the merchandise amount is used as the installment-object amount, and the installment amount per month and the payment amount are calculated. Since the contents of the bonus-payment total amount storage area (23) and the number-of-bonus payments storage area (31) are 0, the bonus-payment total amount and the number of bonus payments that are printed out at (ST45) are printed out as 0.

Also, in the decisions of (ST2T to ST25), except for the bonus key flag (38) and the



down-payment key flag (39), when the fact that the other key flags (36, 37) are both "1" is confirmed, in other words, when the fact that the merchandise amount and the number of installments have been inputted is confirmed, it advances to the process of the flow chart shown in Figure 5(E). There, at (ST54), the content (merchandise amount) of the merchandise-amount storage area (21) is transferred to the installment-object amount storage area (29). Continuing, at (ST55), the equal installment-object amount (= payment amount) is determined by multiplying the contents (installment-object amount) of the installment-object amount storage area (29) by the contents (interest corresponding to the number of installments) of the applied interest storage area (25); these are stored into the equal installment-object amount storage area (33) /10 and the payment amount storage area (30). Continuing, at (ST56), the installment amount per month is found by dividing the contents (equal installment-object amount) of the equal installment-object amount storage area (33) by the contents (number of installments) of the number-of-installments storage area (22); afterwards the installment amount per month is stored into the installment-amount-per-month storage area (34), then it advances to (ST45) of Figure 5(B).

In this case, since the down-payment amount is not inputted, the merchandise amount is used as the installment-object amount as is, and the installment amount per month and the payment amount are calculated. Because the contents of the down-payment amount storage area

(24), the bonus-payment total amount storage area (23), and the number-of-bonus-payments storage area (31) are 0, the down-payment amount, the bonus-payment total amount, and the number of bonus-payment totals that are printed out at (ST45) are printed out as 0.

According to this application example, when the merchandise amount and the number of installments are inputted from the keyboard (15), the merchandise amount is used as the installment-object amount, the installment amount per month and the payment amount are determined, and these are printed out. Since the customer can ascertain the installment amount per month and the payment amount according to the interest corresponding to the desired number of installments, along with being able to lighten the burden for the sales side, the response to the customer is also quickly obtained, which it can contribute to an improvement in service.

Also, when the merchandise amount, the number of installments, and the down-payment total amount are inputted from the keyboard (15), the merchandise amount minus the down payment amount is used as the installment-object amount; the installment amount per month and the payment amount can be determined, and these are printed out. Therefore, even when the customer desires to remit payment as a down payment, since the installment amount per month excepting that bonus-payment total amount, can be simply and quickly determined, it can offer information that meets the requirements of the customer.

Also, when the merchandise amount, the number of installments, and the bonus-payment total amount are inputted from the keyboard (15), the merchandise amount is used as the installment-object amount; the number of bonus payments, the bonus-payment total amount, the installment amount per month, and the payment amount are found, and these are printed out. Therefore, even in the event the customer desires to make a payment at bonus time, since the installment amount per month excluding the bonus time payment total amount can be simply and quickly determined, it can offer information that meets the requirements of the customer.

Also, when the merchandise amount, the number of installments, the down-payment amount, and the bonus-time payment amount are input from the keyboard (15), the merchandise amount minus the down-payment amount is used as the installment-object amount; the number of bonus payments, the bonus-payments total amount, the installment amount per month, and the total payment amount are determined, and these are printed out. Therefore, even when the customer wants to make a down payment or a bonus-time payment, installment-payment information including these requests can be provided.

#### Application Example 2

Application Example 2 is one that is made so as to conduct the installment payment totaling with a credit/loan company that the customer designates from among three credit/loan

companies and the interest for the number of installments, which is the same as shown in Figures 1 and 4 explained in Application Example 1; Figure 2 is changed to Figure 6, Figure 3 to Figure 7, and Figure 5(A) to (E) to Figure 8(A), (B), respectively. Here, only the functions that are different from Application Example 1 are explained, and explanations in regard to the common functions are omitted.

In Figure 6, the interest storage areas (26 to 28) corresponding to the number of installments in Application Example 1, the installment-object amount storage area (29), and the equal installment-object amount storage area (33) are omitted; in place of those, the interest storage areas (51) (51<sub>1</sub> to 51<sub>3</sub>), (52) (52<sub>1</sub> to 52<sub>3</sub>), and (53) (53<sub>1</sub> to 53<sub>3</sub>), in which the interest corresponding to the number of installments ( $N = 12, 24, 36$ ) for each Credit/loan Company A, B, C are stored, along with the work area (40), are provided.

In the interest storage area (51) (51<sub>1</sub> to 51<sub>3</sub>) for Credit/loan Company A, the interest for 12 payments, the interest for 24 payments, and the interest for 36 payments are stored at each number of installments ( $N = 12, 24, 36$ ). In the same manner, the interest for 12 payments, the interest for 24 payments, and the interest or 36 payments for each credit loan company /11 are respectively stored at each number of installments ( $N=12, 24, 36$ ) in the interest storage area (52) (52<sub>1</sub> to 52<sub>3</sub>) for Credit/loan Company B and the interest storage area (53) (53<sub>1</sub> to 53<sub>3</sub>) for Credit/loan Company C.

Also, in Figure 7, the number-of-times key (48) in Application Example 1 is omitted; in place of that, the credit/loan company designation keys (54) of "A," "B," "C," which input the credit/loan company designation information are provided for designating a particular credit/loan company from among the credit/loan companies A to C.

Also, in Figure 8(A), at (ST6) a determination is made as to whether the credit/loan company designation key (54) has been pushed, and taking as a condition the fact that the credit/loan company designation key (54) has been pushed, it advances through (ST13) and (ST14) to (ST15), and the interest corresponding to the number of installments from among the interest storage areas (51 to 53) which corresponds to the credit/loan company that was inputted by the credit/loan company designation key (54) is selected; this is stored into the applied-interest storage area (25). Continuing, it advances to (ST15-1) and calculates the number of bonus payments from the number of installments of the number-of-installments storage area (22). In other words, if the number of payments is "12," it calculates "2", if the number of installments is "24," it calculates "4," and if the number of installments is "36," it calculates "6," respectively. Continuing, it advances to (ST15-2), and changes to the process that stores the number-of-bonus-payments that was calculated to the number of bonus payments storage area (31).

Also, in Figure 8(B), the conditions are taken to be that the subtotal key (45) was pushed at (ST3) of Figure 8(A), it advances to (ST61, 62), and determinations are made as to whether the

installment key flag (36) and the number-of-times key flag (37) are "1." In the event flags (36, 37) are not "1," it is processed as an error. If both flags (36, 37) are "1," it advances to (ST63), and after the contents (merchandise amount) of the merchandise-amount storage area (21) are transferred to the work area (40), it advances to (ST64), and a determination is made as to whether the down payment key flag (39) is "1." If the down payment Key flag (39) is "1," it advances to (ST65), it finds the installment-object amount by subtracting the content (down-payment amount) of the down-payment amount storage area (24) from the content (merchandise amount) of the work area (40); afterwards, this installment-object amount is stored into the work area (40), then it advances to (ST66). In the event the down payment key flag (39) is not "1," it advances to (ST66) without conducting the process of (ST65).

At (ST66), the payment amount is determined by multiplying the contents (installment-object amounts) of the work area (40) by the contents (the interest corresponding to the credit/loan company designation information and the number of installments) of the applied-interest storage area (25); after that payment amount is stored into the payment amount storage area (30) and the work area (40), it advances to (ST67), and a determination is made as to whether the bonus key flag (38) is "1."

Here, if the bonus key flag (38) is "1," it advances to (ST68), and determines the bonus-payment total amount by multiplying the contents (bonus-payment total amount) of the bonus-

payment total amount storage area (23) by the contents (number-of-bonus payments) of the number of bonus payments storage area (31); that bonus-payment total amount is stored into the bonus-payment total amount storage area (32) then it advances to ST69: continuing, the equal installment-object amount is found by subtracting the contents (bonus-payment total amount) of the bonus-payment total amount storage area (32) from the contents (payment amount) of the work area (40); after that equal installment-object amount is stored into the work area (40), it advances to (ST70). In the event the bonus key flag (38) is not "1," it advances to (ST70) without conducting the processes of (ST68, 69).

At (ST70), it finds the installment amount per month by dividing the contents (equal installment-object amount) of the work area (40) by the contents (number of installments) of the number-of-installments storage area (22); after that installment amount per month is stored in the installment-amount-per-month storage area (34), it conducts the processes of (ST71, 72, 73). The processes of (ST71, 72, 73) are the same as the processes of (ST44, 45, 46) in Application Example 1.

Therefore, after the number of installments is inputted by the register keys (42), if any of the credit/loan company designation keys (4) corresponding to a credit/loan company that the customer designated is pushed, the interest is selected corresponding to the number of installments inputted by the register keys (42) from among the interest storage areas (51 to 53) of

the company designation keys (54) for whichever of the credit/loan companies the customer has designated; along with being stored into the applied-interest storage area (25), the number of bonus payments is calculated from that number of installments, and stored to the number of bonus payments storage area (31). /12

Afterwards, if the subtotal key (45) is pushed, the installment amount per month and the payment amount can be found based on the interest stored in the applied-interest storage area (25). In this case also, after any one of the credit/loan company designation keys (54) is pushed, if the bonus-payment total amount and the down-payment amount are inputted, an amount from which the down-payment amount is subtracted from the merchandise amount is used as the installment-object amount, and the number of bonus payments, the bonus-payment total amount, the installment amount per month, and the total-payment amount are found, then printed out. Therefore, along with the customer being able to ascertain the installment amount per month and the payment amount at the interest rate of the desired credit/loan company, installment-payment information that includes the remittance of the down payment and the payment requirement at bonus time can be offered.

In the above-mentioned Application Example 2, the three companies A to C were used as the credit/loan companies, but the number of credit/loan companies can be two, or more than four.



Also, in the above-mentioned Application Examples 1 and 2, the number of installments were set to the three types 12, 24, 36, and the interest [rates] corresponding to these were stored in the interest storage areas (26, 27, 28, 51<sub>1</sub> to 51<sub>3</sub>, 52<sub>1</sub> to 52<sub>3</sub>, 53<sub>1</sub> to 53<sub>3</sub>), respectively, but the number of installments can be two or more than four types.

Also, in the above-mentioned Application Examples 1 and 2, the installment payment period was made one month, but it is not limited to this and can be arbitrarily set to any period.

Also, in the above-mentioned Application Examples 1 and 2, the printer (18) was used as a means for outputting the installment-payment information, but it can also be made so as to use a display device (16). For the information that is outputted, it is not necessary that it be all of the contents that were presented in the above-mentioned application examples, and it can be made so as to output at least one of the total-payment amount and the installment amount per month. This is because one of these is the information the customer desires most.

Also, in the above-mentioned Application Examples 1 and 2, an explanation was given in regard to an example that used an ECR, but it is not especially limited to an ECR, and can also be constructed as equipment that calculates and outputs only the installment-payment information.

#### Effects of the invention

According to the invention recorded in Claim 1, if the merchandise amount and the

number of installments are inputted, the merchandise amount becomes the installment-object amount, the installment amount for each time and the payment amount are determined, and at least one of these is outputted. Therefore, at least one of the installment amount for each time and the payment amount can be quickly simply and quickly shown to the customer. This fact, along with being able to reduce the burden for the salesperson, can also quickly obtain the response for the customer, and contributes to an improvement of service.

Also, according to the invention recorded in Claim 2, if the merchandise amount, the number of installments, and the down-payment amount are inputted, the amount from which the down-payment is subtracted from the merchandise amount is used as the installment-object amount, the installment amount for each time and the total-payment amount are determined, and at least one of these is outputted. Therefore, because the customer can know at least one of the installment amount for each time and the total-payment amount in the case of remitting a down-payment amount, information that meets the requirements of the customer can be offered.

Also, according to the invention recorded in Claim 3, if the merchandise amount, the number of installments, and the bonus-payment total amount are inputted, the merchandise amount is used as the installment-object amount, the installment amount is found for each time by excepting the bonus-payment total amount, and at least one of the installment amount payment amount for each time and the payment amount is outputted. Therefore, the customer can

know at least one of the installment amount for each time including the bonus-payment total amount and the payment amount, and information that meets the requirements of the customer can be offered.

Also, according to the invention recorded in Claim 4, if the merchandise amount, the number of installments, and the credit/loan company designation information are inputted, the merchandise amount is used as the installment-object amount, and the installment amount for each time and the payment amount are found according to the interest corresponding to that credit/loan company designation information and the number of installments, and at least one of these is outputted. Therefore, because the customer can be simply and quickly shown at least one of the installment amount for each time and the payment amount with the desired credit/loan company and number of installments, information that meets the requirements of the /13 customer can be offered.

#### Brief description of the figures

Figures 1 to 5 are drawings showing Application Example 1 of this invention, Figure 1 is a system overall block diagram, Figure 2 is a diagram showing the contents of the RAM, Figure 3 is a diagram showing the keyboard, Figure 4 is a diagram showing a receipt sample, and Figures 5(A), (B), (C), (D), and (E) are flow charts.

Figures 6 to 8 are diagrams showing Application Example 2 of this invention, Figure 6 is a diagram showing the contents of the RAM, Figure 7 is a diagram showing a keyboard, and Figures 8(A) and (B) are flow charts.

- 11,13. CPU and ROM (control means)
- 14. RAM (memory means)
- 15. Keyboard (input means)
- 18. Printer (output means)
- 21. Merchandise-amount storage area
- 22. Number-of-installments storage area
- 23. Bonus-payment total amount storage area
- 24. Down-payment amount storage area
- 26, 27, 28, 51, 52, 53. Interest storage areas

//Insert Figures 1 to 8//

Figure 1

Key: 11, 13 CPU and ROM (control means)  
14 RAM (memory means)  
15 Keyboard (input means)  
16 Display device  
18 Printer (output means)  
21 Merchandise-amount storage area  
22 Number-of-installments storage area  
23 Bonus-payment total amount storage area  
24 Down-payment amount storage area  
26, 27, 28, 51, 52, 53. Interest storage area

Figure 2

Key:	21	Merchandise-amount storage area
	22	Number-of-installments storage area
	23	Bonus-payment total amount storage area
	24	Down-payment amount storage area
	25	Applied interest storage area
	26	Interest storage area for number of installments (N = 12)
	27	Interest storage area for number of installments (N = 24)
	28	Interest storage area for number of installments (N = 36)
	29	Installments object amount storage area
	30	Payment-amount storage area
	31	Number of bonus payments storage area
	32	Bonus-payment total amount storage area
	33	Equal installment-object amount storage area
	34	Installment amount per month storage area
	35	Total-payment amount storage area
	36	Installment key flag
	37	Number-of-times key flag
	38	Down-payment amount key flag
	39	Down payment key flag

Figure 3

Key:	1	Register
	2	Check
	3	Accumulate
	4	Total
	5	Illegible
	45	Subtotal Key
	46	Tended/current total key
	47	Installment
	48	Number of times
	49	Bonus
	50	Down payment

Figure 4

Key: 1 Down payment  
2 Every month  
3 Bonus time  
4 Total-payment amount  
5 Times





Figure 5(A)

Key:	1	Start
	2	Error
	3	End
	ST1	Total mode?
	ST2	Other mode processing
	ST3	Subtotal key?
	ST4	Register keys?
	ST5	Installment key?
	ST6	Number of times key?
	ST7	Bonus key?
	ST8	Down payment Key?
	ST11	Store the numeric data (merchandise amount) to the merchandise-amount storage area
	ST12	Installment key flag 6 1
	ST13	Is it any one of the numeric data 12, 24, 36?
	ST14	Store numeric data (number of installments) to the number-of-installments storage area
	ST15	Store the interest corresponding to the number of installments in the applied interest storage area
	ST16	Number of times key flag 6 1

- ST17 Store the numeric data (bonus-payment total amount) in the bonus-payment total amount storage area
- ST18 Bonus key flag 6 1
- ST19 Store the numeric data (down-payment amount) in the down-payment amount storage area
- ST20 Down-payment key flag 6 1
- ST21 Installment key flag 1?
- ST22 Number of times key flag 1?
- ST23 Bonus key flag 1?
- ST24 Down-payment key flag 1?
- ST25 Down-payment key flag 1?

Figure 5(B)

Key: ST31 (Merchandise-amount storage area) - (down-payment amount storage area) 6 (installment-object amount storage area)

- ST32 (Installment-object amount storage area) (applied  
interest storage area) 6 (payment amount storage area)
- ST33 Number of installments  $N = 12?$
- ST34 Number of installments  $N = 24?$
- ST35 Number of installments  $N = 36?$
- ST36 2 6 (number of bonus payments storage area)
- ST37 (Bonus-payment total amount storage area) X (number of  
bonus payments storage area) 6 (bonus payments total  
amount storage area)
- ST38 4 6 (number of bonus payments storage area)
- ST39 (Bonus-payment total amount storage area) (number of  
bonus payments storage area) 6 (bonus payments total  
amount storage area)
- ST40 6 6 (number of bonus payments storage area)
- ST41 (Bonus-payment total amount storage area) (number of  
bonus payments storage area) 6 (bonus payments total  
amount storage area)
- ST42 (Payment amount storage area) - (total bonus payments  
amount storage area) 6 (equal installment-object amount  
storage area)
- ST43 (Equal-installment-object amount storage area) )  
(number-of-installments storage area) 6 (installment  
amount for one month storage area)
- ST44 (Down-payment amount storage area) + (payment amount  
storage area) 6 (total-payment amount storage area)
- ST45 Print the respective contents of (down-payment amount  
storage area) (installment amount per month storage  
area) (number-of-installments storage area) (bonus-  
payment total amount storage area) (number of bonus  
payments storage area) (total-payment amount storage  
area)
- ST46 Clear areas and flags except for the interest amount  
corresponding to the number-of-installments storage  
area
- 50. End

Figure 5(C)

Key: ST51 (Merchandise-amount storage area) 6 (installment-object  
amount storage area)

Figure 5(D)

- Key: ST52 (Merchandise-amount storage area) (down-payment amount storage area) 6 (installment-object amount storage area)
- ST53 (Installment object storage area) (applied interest for each area)  
6 (equal-installment-object amount storage area)  
6 (payment amount storage area)

Figure 5(E)

- Key: ST54 (Merchandise-amount storage area) 6 (installment-object amount storage area)
- ST55 (Installment-object amount storage area) X (applied interest storage area)
- 6 (equal-installment-object amount storage area)
- 6 (total-payment amount storage area)
- ST56 (Equal installment-object amount storage area )
- (number-of-installments storage area) 6 (installment amount per month storage area)







Figure 6

Key:	21	Merchandise-amount storage area
	22	Number-of-installments storage area
	23	Bonus-payment total amount storage area
	24	Down-payment amount storage area
	25	Applied interest storage area
	26	Interest storage area for number of installments (N = 12)
	27	Interest storage area for number of installments (N = 24)
	28	Interest storage area for number of installments (N = 36)
	30	Payment-amount storage area
	31	Number of bonus-payments storage area
	32	Bonus-payments total amount storage area
	34	Installment amount per month storage area
	35	Total-payment amount storage area
	36	Installment key flag
	37	Number of times key flag
	38	Bonus key flag
	39	Down-payment key flag
	40	Work area

Figure 7

1. Register
2. Check
3. Accumulate
4. Total
5. Illegible
- 45 Subtotal key
- 46 Tended/current total key
- 47 Installment
- 49 Bonus
- 50 Down payment

Figure 8(A)

- Key: 1 Start  
 2 Error  
 3 End
- ST1 Total mode?  
 ST2 Other mode processing  
 ST3 Subtotal key?  
 ST4 Register keys?  
 ST5 Installment key?  
 ST6 Number-of-times key?  
 ST7 Bonus key?  
 ST8 Down payment key?  
 ST11 Store the numeric data (merchandise amount) into the  
 merchandise-amount storage area  
 ST12 Installment key flag 6 1  
 ST13 Is it any one of the numeric data 12, 24, 36?  
 ST14 Store the numeric data (number of installments) into  
 the number-of-installments storage area  
 ST15 Store the interest corresponding to the number of  
 installments in the applied interest storage area  
 ST15-1 Calculate number of bonus payments  
 ST15-2 [Store] number of bonus payments in number of  
 bonus-payments storage area  
 ST16 Number of times key flag 6 1  
 ST17 Store the numeric data (bonus-payment total amount) in  
 the bonus-payment total amount storage area  
 ST18 Bonus key flag 6 1  
 ST19 Store the numeric data (down-payment amount) in the  
 down-payment amount storage area  
 ST20 Down payment key flag 6 1

Figure 8(B)

Key:	1	Error
	2	End
ST61	Installment key flag 1?	
ST62	Number-of-times key flag 1?	
ST63	(Merchandise-amount storage area) 6 (work area)	
ST64	Down-payment amount key flag 1?	
ST65	(Work area) - (down-payment amount storage area) 6 (work area)	
ST66	(Work area) (applied-interest storage area) 6 (payment amount storage area) 6 (work area)	
ST67	Bonus key flag 1?	
ST68	(Bonus-payment total amount storage area) (number-of-bonus-payments storage area) 6 (bonus-payments total amount storage area)	
ST69	(Work area) - (bonus-payments total amount storage area) 6 work area	
ST70	(Work area) ) (number-of-installments storage area) 6 installment amount per month storage area)	
ST71	(Down-payment amount storage area) + (payment amount storage area) 6 (total-payment amount storage area)	
ST72	Print the contents of (Down-payment amount storage area) (installment amount per month storage area) (number-of-installments storage area) (bonus-payment total amount storage area) (number-of-bonus payments storage area) (total-payment amount storage area), respectively	
ST73	Clear areas and flags except for the interest storage area	